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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,737	08/28/2003	Hisayuki Kato	67161-088	5698
7590 06/09/2004 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096			EXAMINER PRENTY, MARK V	
			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/649,737

Applicant(s)

KATO, HISAYUKI

Examiner

MARK V PRENTY

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date August 28, 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

This Office Action is in response to the papers filed on August 28, 2003.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Stamper (United States Patent 6,111,301).

With respect to independent claim 1, Stamper discloses a semiconductor device formed on a substrate (see the entire reference, including the Fig. 2 disclosure, for example), comprising: an interconnection line 3/6 formed on substrate 8 and provided to structure a prescribed circuit; and a fuse 2 incorporated into said interconnection line, said fuse and a connection portion of said interconnection line electrically connected to the fuse being formed of different metals (although layers 2 and 6 are formed of the same metal (see column 2, lines 56-57), the interconnection line's layer 3 is formed of a different metal (see column 2, lines 48-56)).

Claim 1 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Stamper.

Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Young (United States Patent 6,661,330).

With respect to independent claim 1, Young discloses a semiconductor device formed on a substrate (see the entire reference, including the Fig. 2 disclosure, for example), comprising: an interconnection line 175/135/150 formed on substrate 105 and provided to structure a prescribed circuit; and a fuse 101 incorporated into said interconnection line, said fuse and a connection portion 135/150 of said interconnection line electrically connected to the fuse being formed of different metals (see column 5, lines 30-35, and column 5, lines 52-58).

Claim 1 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Young.

With respect to dependent claim 9, Young's fuse is formed from at least two portions different in width (see the Fig. 3A-3B disclosure).

Claim 9 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Young.

Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Delpech et al. (United States Patent 6,271,574 – hereafter Delpech).

With respect to independent claim 10, Delpech discloses a semiconductor device formed on a substrate (see the entire patent, including the Figs. 2-3 disclosure, for example), comprising: an interconnection line 14/15 formed on substrate 13 and provided to structure a prescribed circuit; and a fuse 1 incorporated into said interconnection line, said fuse having a width gradually reduced from an end toward an intermediate portion of the fuse.

Claim 10 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Delpech.

With respect to dependent claim 11, Delpech's fuse has at least three different widths from the end toward the intermediate portion (i.e.,  $W_1$ ,  $W_2$  and the width(s) between  $W_1$  and  $W_2$ ).

Claim 11 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Delpech.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamper (United States Patent 6,111,301) together with Delpech et al. (United States Patent 6,271,574 – hereafter Delpech).

Claim 9 depends on independent claim 1. The explanation of the above rejection of independent claim 1 under 35 U.S.C. 102(b) as being anticipated by Stamper is hereby incorporated by reference into this rejection of dependent claim 9 under 35 U.S.C. 103(a) as being unpatentable over Stamper together with Delpech.

The difference, therefore, between claim 9 and Stamper is claim 9's fuse is formed from at least two portions different in width.

Delpech teaches that forming a fuse from at least two portions different in width increases its efficiency (see the entire patent, particularly the Fig. 3 disclosure).

It would have been obvious to one skilled in this art to form Stamper's fuse from at least two portions different in width in order to increase its efficiency, as taught by Delpech.

Claim 9 is thus rejected under 35 U.S.C. 103(a) as being unpatentable over Stamper together with Delpech.

Claims 2-8 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not disclose or suggest the allowable semiconductor device taken as a whole, including the different metals.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.

  
Mark V. Prenty  
Primary Examiner